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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,807	04/27/2001	Kraig A. Kirschner	261/178	4280

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EXAMINER

BRITTAIN, JAMES R

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/844,807

Applicant(s)

KIRSCHNER, KRAIG A.

Examiner

James R. Brittain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 9, 2003 has been entered.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "seismic adapter adapted to be removably affixed to substantially any point along the beam of the steel web joist without disassembly of the steel web joist" (claim 9, lines 5-6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 4 is objected to because the term "the engagement profile of the distal edge" (lines 1-2) lacks clear antecedent basis because claim 1 defines two engagement files, one on each upstanding engagement portion and it is unclear to which of the two

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applicant is referring. It is assumed that only one engagement profile requires the shoulders.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The passage in claim 9 comprising "a seismic adapter adapted to be removably affixed to substantially any point along the beam of the steel web joist without disassembly of the steel web joist" (lines 5-6) lacks antecedent basis in the specification as filed for the capability of being "removably affixed to substantially any point along the beam of the steel web joist without disassembly of the steel web joist".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-5 and 7-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over applicant's description of the prior art as described in the information disclosure statement received July 30, 2001 in view of Koyama (US 5259165).

Applicant's description of the prior art is described in the information disclosure statement received July 30, 2001. Therein applicant describes how the AFCON Flyer 962 square washer is utilized by stating that "This washer is prior art to the present invention and has been employed in the prior art in pairs with a threaded shaft extending therebetween, held by nuts where the washers are placed above and below a cord space in the upper beam of a steel web joist such as disclosed in the resent application. Hangers have been coupled with the shaft extending between the washers. This coupling is typically below the lower washer and is held in place by the nut threaded onto the shaft." Thus applicant has described a seismic suspension system with a steel web joist such as disclosed in this application with the two angle elements, each having a first leg and a second leg, the first legs being parallel with a cord space therebetween and the second legs extending in opposite direction, an anchor plate and an engagement plate placed respectively above and below the cord space with the anchor plate held in juxtaposition with the second legs and the engagement plate held against the edges of the first legs by nuts upon a threaded shaft. The threaded shaft extends below the engagement plate and can receive a hanger which is secured by the lower nut. The prior art described by applicant fails to provide the engagement plate with upstanding engagement portions to either side of the flat anchor portion, the engagement plate extending across the cord space with each upstanding engagement

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portion having a distal edge with an engagement profile in interlocking engagement with the first legs. However, Koyama (figures 3, 4 and claims 1 and 3-6) teaches a similar suspension system and further suggests in combination the steel web joist including a beam with two angle elements 4, each having a first leg and a second leg, the first legs being parallel with a cord space therebetween and the second legs extending in opposite directions; an anchor plate 2 having a first hole 2g therethrough; an engagement plate 3 including a flat anchor portion 3c having a second hole 3g therethrough and upstanding engagement portions 3a, 3b to either side of the flat anchor portion 3c, the engagement plate 3 extending across the cord space opposite the anchor plate 2, the upstanding engagement portion 3a having a distal edge with an engagement profile defined by central tongue 3e extending between the shoulders 3d, the other upstanding engagement portion 3b has a distal edge with an engagement profile defined by central tongue 3f which interlocks the engagement portion 3b between the first legs so that it will not move laterally to either the left or right as shown in figure 4. The engagement plate secures interlocks the first legs together by contacting the first legs between the second legs by the tongue 3e. Applicant indicates structure that provides interlocking engagement in the specification [0006] by stating "In a second separate aspect of the present invention, the engagement plate includes distal edges with tongues extendible to between the parallel legs of the steel web joist beam for interlocking engagement." This establishes that all that is required for interlocking engagement is that the engagement plate distal edges include tongues extendible between the parallel legs of the web joist and Koyama provides such structure in

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tongues 3e and 3f. While the last sentence of [0006] states, "Shoulders to either side of each tongue may abut against the edges of the legs", the use of the term "may" indicates that the shoulders are not required for interlocking engagement to exist. A stud extends from the first hole 3g to and beyond the second hole 2g, the stud is adapted to secure the anchor plate and the engagement plate to the beam of the steel web joist. The bolt acts as a support for an object suspended therefrom as indicated in claims 3-6 of Koyama. The tongues 3e and 3f are sandwiched by the first legs and act to hold the angle elements at a given interval (col. 3, lines 11-15) and thereby provide better dimensional stability to the beam thereby providing an engineering advantage. Applicant is reminded that "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). The Koyama reference would suggest to one of ordinary skill in the art that the engagement plate 3 would be prevented from lateral movement by the tongues 3e, 3f being interlocked between the first legs and therefore have the benefit of maintaining the threaded shaft in a position that prevents lateral movement of the attachment while also contributing to the greater dimensional stability of the beam. Accordingly, it would have been obvious to modify the prior art described in the information disclosure statement received July 30, 2001 to include upstanding engagement portions to either side of the flat anchor portion, the engagement plate extending across the cord space with each upstanding engagement portion having a distal edge with an engagement profile in interlocking engagement with

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the first legs as shown in Koyama so as prevent lateral movement of the engagement plate while also providing for greater dimensional stability of the beam.

As to claim 2, the prior art as described in the information disclosure statement received July 30, 2001 utilizes a nut to hold the square anchor plate in the form of the 962 square washer in place and fails to state that hole in the anchor plate itself can be threaded. However, Koyama recognizes the equivalence of a separate nut to secure the plate and a threaded aperture to secure a plate thereby providing a strong secure connection in the passage found in column 4, lines 23-28:

*"According to the first embodiment, the fixing member 6 is screwed into the screw hole 3g defined on the lower metal fitting 3. However, the lower metal fitting 3 may have a small hole 3h therein through which the fixing member 6 is inserted and fixed by a nut 6b by way of a washer 6a as illustrated in FIG. 8."*

Accordingly, it would have been obvious to modify the anchor plate as described in the information disclosure statement received July 30, 2001 so that the hole itself is threaded in view of Koyama teaching that this is an equivalent structure to having a separate nut in providing a strong connection.

In regard to claim 3, changes in shape have been found obvious absent evidence that the particular configuration is significant. *In re Dailey* 357 F.2d 669, 149 USPQ 47 (CCPA 1966) and the configuration of Koyama, which has 90° angle configuration of the upstanding engagement portion, is a fraction of a degree less than being an obtuse angle and maintains the legs of the angle elements in a spaced configuration.



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As to claims 4 and 5, Koyama teaches as indicated above an engagement profile defined by central tongue 3e extending between the shoulders 3d wherein the tongue 3e has the free end curved so as to aid in insertion and this suggests tapering the tongue of Koyama.

As to claim 7, the engagement means of Koyama is defined by the tongue 3e and applicant indicates as pointed out above that the shoulders are not necessary for the interlocking engagement.

In regard to claim 8, applicant describes how the AFCON Flyer 962 square washer is utilized by stating that "Hangers have been coupled with the shaft extending between the washers. This coupling is typically below the lower washer and is held in place by the nut threaded onto the shaft." This suggests it would be obvious to have an aperture in an attachment brackets also known as hangers secured by a nut onto the threaded shaft.

As to claim 9, Koyama shows that the cord space between the angle elements is longitudinally sectioned so as to permit the sliding of suspension elements at a plurality of points therealong.

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over applicant's description of the prior art as described in the information disclosure statement received July 30, 2001 in view of Koyama (US 5259165) as applied to claim 3 above, and further in view of Steinke (US 4408928).

Further modification suspension system described by applicant as prior art so that the engagement plate suggested by Koyama has shoulders sandwiching the

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tongue, not just on one engagement portion, but on both would have been obvious in view of Steinke (figures 2-5) teaching that it is desirable to enhance the interlocking engagement by having shoulders 57 on each upstanding engagement portions so as to have a better interlocking securement (col. 5, lines 6-10).

### ***Response to Applicant's Arguments***

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new grounds of rejection.

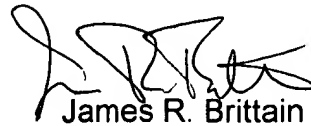
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is 703-308-2222. The examiner can normally be reached on M, W & F 5:30-1:30, T 5:30-2:00 & TH 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



James R. Brittain  
Primary Examiner  
Art Unit 3677

JRB  
July 27, 2003